

REMARKS

Claims 1-25 remain in the application.

Claims 26-47 are previously withdrawn.

Claim Rejections - 35 U.S.C. §103 and Double Patenting

Claims 1-25 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Tsai (4,673,696) in view of Kurth et al (2002/0121328).

Claims 1-25 also stand rejected under 35 U.S.C. §103(a) as being obvious over Lekovic et al (6,803,390) & (6,699,916), each taken alone, in view of Kurth et al.

Finally, the nonstatutory obviousness-type double patenting rejection is provided based on the Lekovic et al patents taken alone, in view of Kurth et al.

The claims, as amended, define over each of the combinations cited by the Examiner by specifically claiming in the combination, *inter alia*, that the polyisocyanate component has a functionality of between about 2.0 and about 4.0.

The Office Action indicates that Tsai discloses preparations of rigid polyurethane foams through employment of combinations of hydroxyl functional acrylates and other polyols in reaction with polyisocyanate components inclusive of alcohol-modified prepolymer packages prepared in the presence of blowing agents and catalysts inclusive of the tertiary amines. The Office Action indicates that Tsai differs from the instant claims in that the prepolymers derived from the active hydrogen containing compounds as claimed are not particularly set forth. The Office Action states that Tsai sets forth within his own disclosure the necessary polyols which would be looked to in the making of the prepolymers of Applicants' claims. The Office Action concludes that it would have been obvious for one having ordinary skill in the art to have employed the polyols and hydroxyl functional acrylates disclosed by Tsai as the modifying

components in the making of the prepolymers for the purpose of providing acceptable active hydrogen functionality in the facilitation of the realization of targeted formation of segmented structures within the practice of the preparations of Tsai in order to arrive at the products and process of Applicants' claims.

Thus, Tsai, as recognized in the Office Action, fails to teach the prepolymers derived from the active hydrogen containing compounds as claimed. The absence of any such teaching is fatal to the position of obviousness. Nothing in the reference itself teaches or suggests the desirability of the specific prepolymers derived from the active hydrogen containing compounds as set forth in the claims. Merely because a reference can be modified in such a manner to achieve a claimed invention does not render the claim obvious, absent some suggestion to make the modification. Nothing in Tsai offers such suggestion. Accordingly, for this reason alone, the Tsai cannot form the basis for a rejection based on 35 U.S.C. §103.

Additionally, nothing in Tsai teaches or suggests that the polyisocyanate component has a functionality of between about 2.0 and about 4.0. Further, Tsai differs from the Applicants' claims in that the hydrophobic biopolymers are not shown. The Office Action relies on Kurth et al to fill in this discrepancy. While Kurth et al may show a bio based polyol, nothing in Kurth fills in for the discrepancy of Tsai set forth above, namely, that the prepolymers derived from the active hydrogen containing compounds as claimed are not particularly set forth in Tsai. Further, Kurth does not teach or suggest that a polyisocyanate component have a functionality of between about 2.0 and about 4.0.

Further, it appears that the material made in Kurth is not a rigid polyurethane foam as claimed. Nothing in Kurth suggests that it can be used in connection with a rigid foam of type claimed in the instant claims.

Claims 1-25 are further rejected under 35 U.S.C. §103(a) as being unpatentable over Lekovic et al each taken alone in view of Kurth. Again, the Lekovic et al patents disclose rigid polyurethane foams. Nothing in the Lekovic et al patents disclose or contemplate the use of hydrophobic polyol selected the groups consisting of castor oil, soybean oils and combinations thereof. Respectfully, Kurth does not fill in this deficiency. Kurth, et al disclose a use of a bio-based polyol for use in a carpet material. There is no teaching in Kurth that shows the desirability of substitution of a hydrophobic polyol in a rigid polyurethane foam of the type set forth in the Lekovic et al patents.

The properties achieved from a foam of the type claimed in the instant invention, are that the formulation can be applied directly to a substrate and cured in place. This formulation is particularly useful in that a variety of commonly available mixing and dispensing equipment can be used. It is particularly advantageous in that such compounds can be dispensed onto a part and cured in place. Further, the rigid polymer foam derived exhibits improved hydrophobic (water repellant) characteristics. Nothing in the combination of the Lekovic et al patents and Kurth et al patents suggests that this combination can be achieved.

Specifically, Lekovic et al do not disclose any hydrophobic bio-based polyols. Kurth et al do not suggest using hydrophobic polyols in a rigid foam composition as claimed. Accordingly, nothing in either the Lekovic et al or Kurth et al patents discloses the requisite suggestion to combine necessary to combine the references for purposes of making the combination.

With respect to the nonstatutory double patenting rejection, as set forth above, it is respectfully submitted that the independent claims 1, 10 and 19 are not obvious in view of either of the Lekovic et al patents or Kurth et al patents. Accordingly, because the present claims are patentably distinct, it is respectfully submitted that the double patenting rejection cannot stand.

CONCLUSION

The Applicant respectfully requests consideration of the claims of the instant application and a favorable response is earnestly solicited. In the interests of expediting the prosecution of the instant application, it is respectfully requested that the Examiner contact the attorney of record by telephone in order to resolve any issues concerning patentability.


The Examiner is invited to telephone the Applicant's undersigned attorney at (248) 364-4300 if any unresolved matters remain.

Any needed extension of time is hereby requested with the filing of this document.

The Commissioner is authorized to charge any additional fees or credit any overpayment to Deposit Account No. 50-1612 (Warn Hoffmann Miller & LaLone PC). A duplicate copy of this letter is enclosed herewith.

Respectfully submitted,

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by 

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